

Remarks/Arguments

This response is to the Office Action dated July 25, 2008.

Claims 2, 5-8 and 10 remain in this application.

Claims 2, 5-8 and 10 have been provisionally rejected on the ground of nonstatutory obviousness-type double patenting. Applicants note that USSN 10/805,032 has been expressly abandoned and therefore the rejection no longer applies.

Claims 2, 5-7 and 10 have been rejected under 35 USC 103(a) over GB 2,302,042 A in view of Santoprene being a well known material. Applicants disagree.

The cited combination fails to teach or suggest each and every element of the present invention and as such the prima facie case of obviousness has not been established. In particular, the reference fails to teach the use of a **thermoplastic elastomer** that is formed **through the thickness** of the screen and which **has a thickness greater than** that of **the screen** through which it is formed.

The reference clearly teaches that the EVA copolymer is placed "**between**" the layers not through the screen layers. (Applicants emphasis)/ See GB 2302042, Abstract, line 3, "positioned **between** the elements"; Page 1 third paragraph "**between** the filtration medium and support material"; Page 2, line 9, "positioned **between** the structural elements" and line 35 "**between**"; Page 4, lines 27-28 "positioned **between** the filtration media"; Page 5, lines 1-2 "**between** the filtration media"; Page 6, lines 16-17 "**between** the support materials"; line 34 "positioned **between** the membrane"; Page 7 lines 12-13 "positioned **between** the membrane and the support material"; and claim 1 line 5 "positioned **between** said structural elements".

The only statement it has to embedding the EVA copolymer layer is at pages Page 6, line 27 and page 7, lines 17-19 and that additional diffusion layer is **also between** the membrane and support layer and may preferably be "partially embedded in the copolymer positioned **between** the membrane and the support material." (Applicants emphasis).

Contrary to the statement made in the Office Action, it is clear that the reference fails to teach the gasket material extending **through the layers**, never mind the claimed screen as is required by the present claims. At best, it states that at best a middle layer that is between the two layers can be partially embedded into the EVA copolymer layer that is also between the filter and support layers.

Additionally, it is clear that the EVA copolymer layer of the reference does not extend beyond the thickness of the layer through which it must extend as is required by the present claims. Contrary to the assertion in the Office Action, none of the cited portions of the reference teach or suggest "...seals extending at least 0.001, 0.002, or 0.005 from the surfaces of the screens....".

The abstract cited for support of this proposition only states: "A filtration device comprises at least two constructional elements which are mated together to form an edge, and is characterised in that at least a part of the said edge is fluid tight sealed with and ethylene-vinyl acetate copolymer **positioned between the elements.**" (Applicants emphasis). Nowhere is there support for the assertion that the reference teaches "...seals extending at least 0.001, 0.002, or 0.005 from the surfaces of the screens...." in that cited passage.

Likewise, the third paragraph of page 1 cited for support of this proposition only states: "a variety of sealant and gasket materials have been used **between** the filtration medium and support material of a supported filtration medium assembly, as well as **between** adjacent support materials of

back – to - back supported filtration medium assemblies, so as to control fluid flow and prevent leakage. Such materials include polyurethane which can provide fluid-tight seals but suffers from high extractables which can contaminate the fluid being filtered. Other materials with low extractables, such as polyethylene, however, can be brittle and can have little compliance, thereby allowing for fluid leakage pathways, particularly in filtration devices with motive means, such as dynamic filtration devices.” (Applicants emphasis added). Nowhere is there support for the assertion that the reference teaches “...seals extending at least 0.001, 0.002, or 0.005 from the surfaces of the screens....” in that cited passage.

Likewise the cited sections at Page 2, Page 3 and Page 7 are silent both on the material extending through the layer as well as any thickness extending beyond it. To the contrary, the only thing they teach is that the copolymer is between adjacent layers to form a gasket.

The office action states parathetically that the diffusion layer is a “mesh screen”. To one of ordinary skill in the art, a diffusion layer is something that allows a substance to diffuse through it. It is not specifically a “mesh screen” as has been alleged by the office action. Yet Applicants find no support in the reference for that assertion. **Applicants specifically ask that the examiner provide them with the citation upon which the examiner has relied for this assertion.**

The office action also makes the statement that the copolymer is **heat sealed and penetrates** several layers, yet provides no citation to support this assertion and Applicants see none.

Applicants again specifically ask that the examiner provide them with the citation upon which the examiner has relied for this assertion.

While the material is described as preferably having a lower melting point than the other materials, there is no teaching or suggestion that it is in fact heat melted. To the contrary, at Page 7,

line 35 to Page 8, line 7, the reference discusses the "excellent adhesion and compliance characteristics" of the copolymer. One of ordinary skill in the art would conclude that adhesion is the mechanism for attachment of the copolymer **between** the adjacent layers.

There is no suggestion or motivation absent the claims and teachings of the present invention to have the gasket material extend beyond the layers. In fact, given the clear and unambiguous teachings of the reference to keep the gasket between the layers, one of ordinary skill in the art would not have thought to have extended the gasket material beyond the screen layers. As such no prima facie case of obviousness has been established.

The office action also states that the seal of the reference (EVA copolymer) is a thermoplastic elastomer and states that the Applicants "list EVA as one of the preferred materials for the seal in the specification."

Applicants do mention **EVA** copolymers as a thermoplastic that is suitable for a seal. However, the **claims** have been **narrowed to** claim only **thermoplastic elastomers** which as specified by Applicants in their specification **does not include EVA copolymers**.

Page 8, lines 30 -39 states as follows: "The seal is formed of any elastomeric material. The material does not need to be very elastic but it should have some ability to maintain the seal with the adjacent layers during flexion or compression. Preferably it has a durometer of from about 60 to about 100. Suitable materials include but are not limited to **thermoplastics, such as** polyethylene, polypropylene, **EVA copolymers**, alpha olefins and metallocene copolymers, PFA, MFA, polycarbonate, vinyl copolymers such as PVC, polyamides such as nylon, polyesters, acrylonitrile-butadienestyrene (ABS), polysulphone, polyethersulphone, polyarylsulphone, polyphenylsulphone, polyacrylonitrile, polyvinylidene fluoride (PVDF), and blends thereof, **thermoplastic elastomers**

such as Santoprene® polymer, EPDM rubber, thermosets, such as closed cell foamed urethanes, and rubbers, either natural or synthetic. "(Applicants emphasis).

As to the three questions raised in the office action, Applicants comment as follows:

It is clear that EVA while a thermoplastic, it is not a thermoplastic elastomer from the teachings of the present invention or the prior art or to one of ordinary skill in the art.

The office action cites a Wikipedia citation to EVA copolymers. Applicants contest the validity of a citation from Wikipedia as to its reliability and notes that the Patent and Trademark Office have either elected not to rely on Wikipedia references or require additional separate supportive documents when using such citations.

Applicants point to the statement made by Commissioner of Patents in 2006: "The problem with Wikipedia is that it's constantly changing," Patents Commissioner John Doll said. "We've taken Wikipedia off our list of accepted sources of information." "Kicking Wiki Out Of The Patent Office", By Lorraine Woellert, Business Week, September 4, 2006.

Even if the Wikipedia reference is valid, it does not support the examiner's assertion. It states "It is a polymer **that approaches elastomeric materials**...yet can be processed like other thermoplastics." (paragraph 2, lines 1-2, Applicants emphasis). That statement however does not teach or suggest that EVA copolymer is a "thermoplastic elastomer" as is well known to one of ordinary skill in the art.

US 4,324,866 has been cited to support the assumption that EVA is a "thermoplastic elastomer". yet no section is cited for that support. Applicants note that EVA is taught as a "thermoplastic material" that is "relatively rich in flexibility" (column 1, lines 33-34) but that it has unsatisfactory results as it is temperature and vinyl acetate amount dependent and either is too

sticky or too rigid. Blends of EVA and polybutadiene are still not satisfactory and the reference suggests different (EVA-free) blends to overcome the defects with EVA. US 6,262,137 describe EVA as soft and tacky or sticky making them difficult to process. It suggests grafting maleic anhydride to overcome the tackiness and crosslinking it to give it strength.

Nowhere does either reference suggest EVA is a thermoplastic elastomer as the term is known in the art moreover a thermoplastic elastomer as is claimed in the present invention.

The office action states the EVA copolymer is heat sealed yet the cited portions only say there is a liquid tight seal formed or that the diffusion layer (which is with the EVA between the two layers) is partially embedded in the polymer. To the contrary, at Page 7, line 35 to Page 8, line 7, the reference discusses the "excellent adhesion and compliance characteristics" of the copolymer. In fact the above cited references by the Examiner reinforce the idea of tackiness or adhesion as a means for attaching EVA to supports as it is a well known sticky material. One of ordinary skill in the art would conclude that adhesion and/or pressure is the mechanism for attachment of the copolymer **between** the adjacent layers.

As to question 3, Applicants cite the portions above in which the diffusion layer is clearly between the layers. The examiner's hand drawings fail to overcome the specific and clear teachings of the reference that the EVA copolymer is "between" the layers and doesn't penetrate through them. Moreover the drawings as suggested by the Examiner also fail to show that the thermoplastic elastomer extends through the screen and is proud of the screen. It would not have been obvious to one of ordinary skill in the art to construe the reference as has been done in this office action in view of the clear and contrary teachings to the opposite.

Even if one were to use a true thermoplastic elastomer and combine it with the teachings of the GB reference the cited combination would not teach or suggest the present claims as it would merely put the material between the layers as taught by the GB reference and not through and proud of the screen as is required by the present claims.

As such the prima facie case of obviousness has not been established or if established has been rebutted by the above argument.

Claims 2, 5-8 and 10 have been rejected under 35 USC 103(a) over Rogemont (US 4,701,234) in view of the GB reference and/or Towe (US 6,235,166). Applicants disagree.

The office action states that Rogemont fails to teach or suggest a thermoplastic elastomer but that the GB reference does and that it would have been obvious to substitute the EVA copolymer of the GB reference for the raw, cured in place silicone of Rogemont. Applicants disagree.

The office action's position is based upon the disclosure in the GB reference that its EVA copolymer has low extractables and layers can be sealed together into one body using the material. The Office Action fails to consider the clear teaching that the EVA layer of the GB reference is used between layers of the device and it uses its good adhesive properties to bond the layers together or that Rogemont uses raw silicone and then uses compression and heat to cause the raw material to penetrate the mesh and then polymerize.

What teaching is present to motivate one skilled in the art to use the EVA material of the GB reference in the process of Rogemont? The skilled artisan would have to ignore the teachings of the GB disclosure regarding the placement of the EVA between the layers and using its excellent adhesion properties to hold the layers together, focus only on the EVA material itself, and somehow

arrive at the conclusion that it could be compressed under pressure and heat as taught by Rogemount to fill the mesh of Rogemount.

EVA is a thermoplastic not a thermoplastic elastomer as claimed in the present invention and it would be solid until melted. However in the Rogemount process, the heat used to polymerize the raw silicone would cause the EVA copolymer to melt and flow in uncontrollable ways and not form the seal between the layers as it had in the GB reference. One of ordinary skill in the art would not have been suggested or motivated to use the GB EVA in the Rogemount process as suggested in the present office action.

As stated by the Federal Circuit in *In re Fine*, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1986), "One cannot use hindsight reconstruction to pick and choose from isolated disclosures in the prior art to deprecate the claimed invention."

Of similar import is *In re Wesslau*, 147 U.S.P.Q. 391, 393 (CCPA 1965):

"It is impermissible within the framework of section 103 to pick and choose from any one reference only so much of it as will support a given position to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one skilled in the art." (Emphasis added).

The combination of the two references would not have led to the claimed invention. At best the cited combination would have led to the use of the polymerizable thermoset silicone of Rogemont in the device of the GB reference or the use of the EVA layer between the various layers, relying on the "excellent adhesion" of the EVA to bond the layers together rather than the molding and heating of Rogemount. However that is not the presently claimed invention.

Towe does not overcome the defects of the cited combination. While Towe does teach the use of thermoplastic elastomers, it also teaches that the **mesh (26)** is of the **same height** as the **polymer** (see Figure 2B) and is attached to or embedded in the inner peripheral edge of the polymer (18). There is no teaching or suggestion in Towe to use its material in the process of Rogemont and even if one did, it would not have been obvious nor would it have had a predictable outcome to one of ordinary skill in the art to use it a manner such that the material extended beyond the plane of the layer to it is attached. Given the teachings of the references it would have been predictable to have either had the material between the layers or even with the layers by attaching it to the edge.

As such the prima facie case of obviousness has been rebutted and the claims are believed to be in condition for allowance.

Reconsideration and allowance are respectfully requested in view of the foregoing amendment and remarks.

Respectfully submitted,

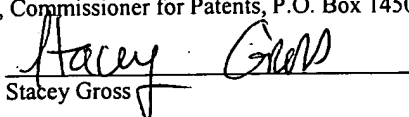

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